



PTO/SB/088 (04-03)

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**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

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Sheet

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of

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Complete if Known

Application Number	10/635,101
Filing Date	August 6, 2003
First Named Inventor	Michael T. Meyer
Art Unit	
Examiner Name	
Attorney Docket Number	16380-4

NON PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
J.D.J.		BOWERS, M.B. et al., High flux boiling in low flow rate, low pressure mini-channel and micro-channel heat sinks. Int. J. Heat Mass Transfer, Vol. 37, No. 2, pp.321-332, 1994, Great Britain.	
9		BOWERS, M.B. et al., Two-Phase Electronic Cooling Using Mini-Channel and Micro-Channel Heat Sinks: Part 1 - Design Criteria and Heat Diffusion Constraints. Transactions of the ASME, Vol. 116, pp. 290-297, December 1994.	
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		COLLIER, John G. et al., Convective Boiling and Condensation, 3rd Ed., Ch. 5, pp. 183-219, Oxford Science Publications, Clarendon Press, Oxford.	
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		GERSEY, C.O. et al., Effects of Orientation on Critical Heat Flux From Chip Arrays During Flow Boiling. Transactions of the ASME, Vol. 114, pp. 290-299, September 1992.	
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J.D.J.		MACKOWSKI, Michael J., Requirements for High Flux Cooling of Future Avionics Systems. SAE Technical Paper Series, 912104, Aerospace Technology Conference and Exposition, Long Beach, California, September 23-26, 1991.	

Examiner Signature	S. D. Thompson	Date Considered	5/2/05
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J. D. K.		Maddox, D.E. et al., Single- and Two-Phase Convective Heat Transfer from Smooth and Enhanced Microelectric Heat Sources in a Rectangular Channel. Journal of Heat Transfer, Vol. 111, pp. 1045-1052, November 1989.	/
		MONDE, M. et al., Critical Heat Flux in Saturated Forced Convective Boiling on a Heated Disk with Multiple Impinging Jets. Transactions of the ASME, Vol. 113, pp. 722-727, August 1991	/
		MUDAWAR, I. et al., Direct-Immersion Cooling for High Power Electronic Chips, Intersociety Conference on Thermal Phenomena in Electronic Systems, Four Seasons Hotel, Austin, Texas, February 3-5, 1992.	/
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		MUDAWAR, I. et al., Optimization of Enhanced Surfaces for High Flux Chip Cooling by Pool Boiling. Journal of Electronic Packaging, Vol. 115, pp. 89-100, March 1993.	/
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		MUDAWAR, I. et al., Critical heat flux in subcooled flow boiling of fluorocarbon liquid on a simulated electronic chip in a vertical rectangular channel. Int. J. Heat Mass Transfer, Vol. 32, No. 2, pp. 379-394, 1989, Great Britain.	/
		MUDAWAR, I. et al., Critical heat flux from a simulated chip to a confined rectangular impinging jet of dielectric liquid. Int. J. Heat Mass Transfer, Vol. 34, No. 6, pp. 1465-1479, 1991, Great Britain.	/
		NAKAYAMA, W. et al., Heat Sink Studs Having Enhanced Boiling Surfaces for Cooling of Microelectric Components. American Society of Mechanical Engineers, 84-WA-HT-89.	/
J. D. K.		PENG, X. F. et al., Forced convection and flow boiling heat transfer for liquid flowing through microchannels. Int. J. Heat Mass Transfer, Vol. 36, No. 14, pp. 3421-3427, 1993, Great Britain.	/

Examiner Signature	J. D. K.	Date Considered	5/2/05
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<i>J. D. Meyer</i>		Advances in Thermal Modeling of Electronic Components and Systems, Vol. 2, ASME Press Series, New York, 1990.	/
		Ravigururajan, T.S., Impact of Channel Geometry on Two-Phase Flow Heat Transfer Characteristics of Refrigerants in Microchannel Heat Exchangers. Journal of Heat Transfer, Vol. 120, pp. 485-491, May 1998.	/
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		TUCKERMAN, D.B. et al., High-Performance Heat Sinking for VLSI. IEEE ELection Device Letters, Vol. EDL-2, No. 5, pp. 126-129, May 1981.	/
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<i>J. D. Meyer</i>		YAN, Yi-Yie et al., Evaporation heat transfer and pressure drop of refrigerant R-134a in a small pipe. Int. J. Heat Mass Transfer, Vol. 41, pp. 4183-4194, Pergamon Press 1998.	

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